

ABSTRACT

Continuous breakpoint halogenation with hydroxyl free radical species is used to increase the rate of sanitization a water system and maintain a high rate of oxidation in the bulk water of the pool, spas, and other water systems despite the presence of accumulated demand. Undesirable compounds can be eliminated by maintaining a level of desired oxidation potential. The feedrate and ratio of halogen donor and free radical species can be optimized to sustain the desired ppm range of halogen and sustain an ORP of, for example, 780 mV - 820 mV. Sustaining these parameters can prevent or even reverse the accumulation of combined halogen and other halogenated volatile compounds, which can contaminate the air and water of water facilities such as indoor swimming pools.